



## Master of Science Urban Agriculture and Green Cities





## MASTER OF SCIENCE URBAN AGRICULTURE AND GREEN CITIES

With the likelihood of cities being denser by 2050, it is becoming essential to take a broader view of sustainable development when it comes to urban planning. In this context, urban agriculture is becoming a key component of nature in the city and brings numerous solutions to the problems of humankind — overcrowding, shortage of agricultural land, climate change, etc.

### CONTEXT

The MSc in Urban Agriculture and Green Cities aims to train future managers in urban agricultural and horticultural jobs according to an innovative and broad-based approach to planning, development and sustainability.

The course has been designed to equip future graduates with the necessary tools and hybrid skills to develop in the public and private professional fields responsible for designing, implementing and monitoring innovative and multifunctional agricultural and horticultural projects in cities.

Today, the capability a city has to implement biodiversity and plant restoration strategies raises many questions, mainly linked to how to design coherent, effective projects that incorporate the following five key principles:

- Local, organic and high-yield food production
- Production and optimized use of renewable energies
- Rain and gray water reclamation and reuse
- Waste recycling
- Energy-plus building construction

The purpose of introducing the Master of Science in Urban Agriculture and Green Cities is to design, implement and follow up projects based on agriculture and horticulture in cities, combining agronomic, architectural, environmental, energy, economic and social concerns.



### SKILLS

**01/** Gain the technical skills required to integrate multifunctional and innovative horticultural projects into urban development plans, building standards and project architectural design.

**02/** Gain and/or broaden skills to manage multidisciplinary teams, particularly planning, leading, coordinating, working in a team and organizational skills.

**03/** Be able to develop a broad vision of the challenges inherent to urban agriculture and horticultural projects in cities at all project stages, both in terms of diagnostics and proposal development, by demonstrating analytical and concise thinking.

# COURSE STRUCTURE

The MSc is taught in French and English and lasts 18 months. The course is based on 13 teaching units (TUs) running from October to June.

## KNOWLEDGE ACQUISITION

Agronomy and biology students

- Urban planning: urban design, plans and projects
- Public areas: mobility and infrastructure

Architecture, planning and landscaping students

- Plant biology, botanics
- Cultivation techniques, substrate, water cycle

## URBAN AGRICULTURE

- Concepts and principles for urban agriculture
- Cultivation techniques for the city: greening buildings, urban farms, multifunctional urban micro-farms, soilless cultivation, urban greenhouses

## URBAN ECOLOGY

- Environmental engineering: concepts, principles and applications in cities
- Biodiversity and green spaces: the principles of ecological management

## URBAN FOOD SYSTEMS

- Food safety for the city
- Distribution channels
- Standards and health safety

## URBAN DESIGN & DEVELOPMENT

- Urban planning strategies: sustainable cities, ecological footprint, sustainable mobility
- Landscape planning: practices, patterns and movements
- Ecodesign, green infrastructures

## SMART CITIES & ECO-INNOVATION

- Digital cities and urban resilience

- Energy performance of buildings
- Circular economy and urban development
- Urban water management

## LAND & TESTING

- Materials & construction
- Approaches to energy
- Water supply systems

## URBAN SOCIOLOGY

- Participative planning
- Urban agriculture and cities in transition

## REGULATIONS

- Urban planning law
- Environmental law

## PRODUCTION & VALUE CHAIN

- Value chain of urban food systems
- Production and local economic development

## INNOVATION MANAGEMENT

- Project management and organization
- Professional urban agriculture (how to become an entrepreneur: lean startup, finding a co-founder)

## GEOGRAPHIC INFORMATION SYSTEMS

- Processing, analysis and management of spatial and geographical data

## SELF- AND GROUP AWARENESS

- Team building
- Participative management
- Languages



## CAREERS

- Project manager in urban agriculture and plant innovation
- Project manager or consultant in ecological planning
- Research engineer or project manager in eco-innovation and regeneration of urban areas
- Development officer in sustainable urban planning
- Consultant in sustainable development
- Project manager in a local authority, urban planning or environmental department or development agency



## INTERNSHIPS AND ASSIGNMENTS

- Six-month internship in a company
- Two four-week company assignments, supervised by professionals



## CREDITS

- 90 ECTS credits, broken down as follows:
  - 27 ECTS for the first semester (September to December)
  - 27 for the second semester (January to June)
  - 6 for the company assignments
  - 15 for the internship in a company or research institute
  - 15 for the professional thesis





## TESTIMONIALS



"... go some way to addressing the problem of climate change..."

In my view, urban agriculture as part of a broader sustainable planning strategy ("green cities") has a huge number of benefits, not least because it provides a means of restoring the link between city-dwellers and nature. It can also go some way to addressing the problem of climate change, which is aggravated by the long distances traveled by our food products before they arrive on our plates. Of course, the fact that my school was the first to launch this type of Master's makes it a real pioneer in the field! The program lasts for 18 months. Students take a range of varied, complementary courses on urban planning, architecture, ecology, food systems and of course urban agriculture, which give them the skills they need to imagine, remodel and design the cities of the future. Another strength of the program was the opportunity to create and work on several projects during the course.

Martin Hemery, 2017 graduate  
UniLaSalle – Rouen campus



"...a broad, varied program..."

During a year abroad in the Netherlands, I had the opportunity to take a Bachelor in Urban Dynamics course. This program looked at how urban agriculture is incorporated into the dynamics of sustainable cities. I was keen to focus more closely on the issue of sustainability in urban environments, so I decided to complete my internship in a startup that specializes in designing corporate software to manage energy consumption in buildings. These experiences made me even more determined to specialize in urban agriculture and how it can be integrated into sustainable urban planning. So when I came back to France, I enrolled on the Master of Science in Urban Agriculture and Green Cities, a broad, varied program that explores questions which really interest me and which I hope will become the basis for my future career. The strengths of this program are the opportunity to interact with professional stakeholders, specialists and designers in urban innovation, and the chance to go on field trips and complete company assignments.

Audrey Le Roux, 2017 graduate  
UniLaSalle – Rouen campus



## Contacts

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## ADMISSION

Future students can come from very different backgrounds, for instance agronomy, landscaping, architecture, urban planning, geography and biology.

Entry requirements:

- Master's degree (or equivalent)
- Bachelor's degree (or equivalent)

Future students can be young graduates or working professionals.

Admission will be based on your application and an interview.

Download the application form from [www.unilasalle.fr](http://www.unilasalle.fr)

Return by:

- 1st session: January 26, 2018
- 2nd session: March 30, 2018
- 3rd session: June 1, 2018



## REGISTRATION FEES

18-mth conventional program: EUR 8,100  
Continuing education: EUR 9,000



## START OF TERM

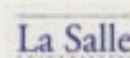
October 1, 2018

## OPEN DAYS



## ROUEN CAMPUS

Saturday January 20, 2018  
Saturday February 10, 2018  
Saturday March 17, 2018



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